REMARKS

Favorable consideration and allowance of the present application is respectfully requested.

Claims 65-107, including independent claims 65, 100, and 104, are currently pending in the present application. Independent claim 65, for instance, is directed to a method of applying an image to a substrate. The method employs a first heat transfer material that comprises a first base layer, a first release layer overlying the first base layer, and a peelable transfer film on which the image is formed. The peelable transfer film comprises an adhesive layer overlying the base layer and a flow-resistant layer overlying the adhesive layer. The flow-resistant layer a flow-resistant layer does not flow appreciably at the transfer temperature. The method also employs a second heat transfer material that comprises a second base layer, a second release layer overlying the second base layer, and an overlay transfer film overlying the second release layer. The peelable transfer film is positioned between the substrate and the overlay transfer film, wherein the adhesive layer is positioned between the substrate and the flow-resistant layer. Heat and pressure are applied to transfer the peelable transfer film and the overlay transfer film to the substrate. The adhesive layer and overlay transfer film are melt-flowable at the transfer temperature, while the flow-resistant layer is not appreciably melt-flowable at the transfer temperature.

In the Office Action, claims 83-85 were rejected, as well as the amendment to the specification filed in Applicant's previous response, were rejected under *35 U.S.C. § 112*, 1st paragraph, as being new matter. However, Applicant refers to paragraph 29 of

U.S. Application Ser. No. 10/003,697 filed on Oct. 31, 2001, by Kronzer, which is incorporated by reference into the present application. The information incorporated by reference is as much a part of the application as filed as if the text was repeated in the application, and should be treated as part of the test of the application as filed. Replacing the identified material incorporated by reference with the actual text is not new matter. See, e.g., MPEP §§ 608.01(p) and 2163.07(b). As such, Applicant respectfully submits that claims 83-85, as well as the previous amendment to the specification, are fully supported by the present application as originally filed.

Also, independent claims 65, 100, and 104 were rejected under *35 U.S.C. § 112*, 1st paragraph, for omitting an essential step in the method: "forming an image onto the peelable transfer film." Applicants point out that claims 65, 100, and 104 require that an image is already formed on the peelable transfer film. This step is not essential to what Applicants regard as the invention – it is well known in the art how to form an image onto a heat transfer material. What is novel in the present application are the methods of transferring an image formed on a heat transfer to a substrate, as claimed in independent claims 65, 100, and 104. Thus, Applicant believes that claims 65, 100, and 104, as originally written, sufficiently require an image be formed on the peelable transfer film.

Independent claims 65 and 100 were rejected under *35 U.S.C. § 102(b)* as being anticipated by U.S. Patent No. 6,017,636 to Tada, et al. Additionally, independent claim 104 was rejected under *35 U.S.C. § 103(a)* as being obvious in view of Tada, et al. Tada, et al. is directed to five embodiments of a transfer system that employs a transfer

layer formed from an emulsion-type urethane resin and preferably a ceramic micropowder. Referring to Fig. 1, for instance, one embodiment of the transfer system of Tada, et al. employs a first transfer sheet A having the following layers:

(1) Urethane emulsion resin layer 2 containing a ceramic micropowder; and

(2) Release sheet 1.

The transfer system of Fig. 1 also employs a second transfer sheet B having the following layers:

(1) Release sheet 3

(2) Lower, heat-adhering resin layer 4;

(3) Middle layer 5; and

(4) Upper, heat-adhering resin layer 6 containing a pigment or micropowder.

The upper layer 6 becomes the background layer for the toner image layer after heat-transfer. The upper layer 6 is preferably formed from a urethane resin emulsion having a softening point of 140°C to 220°C. The lower layer 4 is preferably formed from a solvent-type urethane resin and polyester type resin, and softens and flows into the inner surface of the transfer object. The middle layer 5 functions to keep together the upper layer 6 and the lower layer 4, and is preferably formed from the same resin composition as the lower layer 4. Col. 6.

As an initial matter, none of the embodiments teach or suggest all of the limitations of independent claims 65, 100, or 104. In Tada, et al.'s second, fourth and fifth embodiments, which utilize two heat transfer sheets, Tada, et al. discloses that the

first transfer sheet has only two layers: the transfer layer and the releasing substrate. In contrast, independent claims 65, 100, and 104 each require the use of two heat transfer layers – each having three layers. As such, Tada, et al. completely fails to teach or even suggest all of the claimed elements of independent claims 65, 100, and 104. Thus, Applicants respectfully submit that claims 65, 100, and 104 are not anticipated or obvious in view of Tada, et al.

Furthermore, after heat transfer in Tada, et al., the image is disposed between the urethane emulsion layer 2 and the upper layer 6, which is also preferably formed from an urethane emulsion. According to Tada, et al., the urethane emulsion layer 2 has a specific softening point such that it can prevent the flow of a toner layer (i.e., the image) during heat-pressing. Specifically, the urethane emulsion is said to preferably have a softening point of 140°C to 220°C, while transfer preferably occurs at a temperature of 120°C to 180°C. Cols. 4-5. Thus, all of the transferred layers (of both A and B – specifically layers 2, 6, 5, and 4) flow at the transfer temperature. In fact, nowhere does Tada, et al. disclose or even suggest a transferred layer that does not flow at the transfer layer.

However, the Office Action states that "the lower layer includes aromatic hydrocarbon to allow for accelerated softening to allow the layer to soften or melt to penetrate the inner surface of the object or substrate, i.e., melting before the intermediate layer melts, which has the same resin composition as the adhesive layer but without the aromatic hydrocarbon therefore, providing the intermediate layer as a flow resistant layer." Office Action, pg. 4.

The Office Action goes on to state that Tada, et al. "recites that urethane emulsion layer 2 is preferably have (*sic.*) a softening point of 140°C-220°C, but does not exclude other urethane emulsion with lower softening point (*sic.*), which Tada, et al. also recites using such as 120°C and higher." Office Action, pg. 11, paragraph 15. As pointed out above, Tada, et al. transfer occurs at temperatures of 120°C to 180°C. Cols. 4-5. Thus, contrary to the assertion in the Office Action, all of these layers, including those layers formed from urethane emulsions, soften and flow at the transfer temperature.

In stark contrast, independent claims 65, 100, and 104 require the use of a "flow-resistant layer" that, although may soften with heat, does not flow appreciably into the substrate upon transfer. Such a flow-resistant layer may inhibit graying and loss of opacity of an image, particularly when used on dark-colored substrates. For example, independent claim 65 requires an "overlay transfer film" (including a layer thereof) that is "melt-flowable" at the transfer temperature. In this manner, the overlay transfer film may fuse or melt together with the "peelable transfer film" to form a matched "fused" laminate. Moreover, the claimed peelable transfer film also contains an "adhesive layer" that can provide permanent bonding to a substrate after application of heat and pressure, as well as the "flow-resistant layer." Applicant respectfully submits that Tada, et al. simply fails to disclose or suggest all of the limitations of the method of independent claims 65, 100, and 104.

Applicants also respectfully submit that for at least the reasons indicated above relating to corresponding independent claims, the pending dependent claims patentably

define over the references cited. However, Applicants also note that the patentability of the dependent claims certainly does not hinge on the patentability of independent claims. In particular, it is believed that some or all of these claims may possess features that are independently patentable, regardless of the patentability of the independent claims.

For example, none of the cited references teach or suggest that the melt flow index of a flow-resistant layer is less than the melt flow index of an adhesive layer, such as required in claim 83. Even further, the cited references completely fail to teach or suggest that the melt flow index of a flow-resistant layer is less than the melt flow index of an adhesive layer by a factor of at least 10, much less by a factor of at least 1000. As such, Applicants respectfully submit that claims 83-85 are patentable over the cited references.

Thus, for at least the reasons set forth above, it is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Chan is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Amendment.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully submitted,

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